

Department of Pesticide Regulation



**Worker Health and Safety Branch
Enforcement Branch**

Investigation Procedures Training

November 2005



Purpose of Training



- Improve the skills of the investigator
- Improve the quality of pesticide investigative report
- Introduce changes to the manual

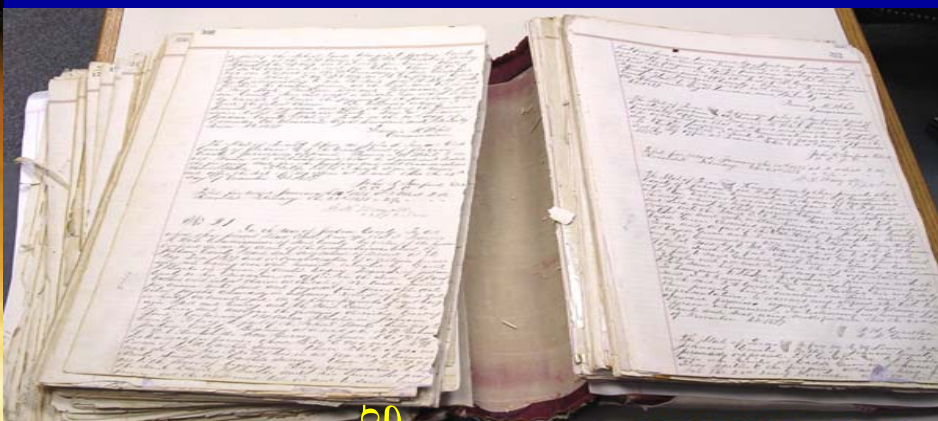
Purpose of the Investigative Report



- Find the causes of pesticide episodes and find ways to avoid repeating them (WH&S)
- Determine whether a violation of laws or regulations occurred (Enforcement)

Investigation Procedures

- Volume #5 of the Pesticide Use Enforcement Program Standards Compendium
- The content of this volume supercede any position or direction on these subjects
- Will be the reference against which county programs are evaluated
- CAC may deviate from these procedures provided the deviation doesn't impact CAC PUE Program or DPR statewide Enforcement Program Oversight



Investigation and Sampling
Techniques Manual

ENF Letter regarding
Investigations

Old Investigation
Procedures Manual



Pesticide Use Enforcement
Program Standards

Volume # 5

Investigation
Procedures



Authority to Investigate Pesticide Episodes



- FAC § 11456(b) Authority to enter
- 3CCR § 6140 Inspection Authority
- B&PC § 8616.5 and § 8616.7 CAC
Structural Inspections and
Investigations

Jurisdiction: Human Effects

DPR/CACs maintain jurisdiction over pesticide use-related episodes:

- Occupational
 - Handlers
 - Field workers
 - Other Workers (exposure occurred incidental to the job, but resulted from someone else handling a pesticide)
- Non-Occupational

Jurisdiction: Non-Human Effects

CAC Responsibility:

- Illegal Residue: How illegal residue occurred
- Property Damage or Loss
- Fish and Wildlife Episodes: assist Department of Fish and Game in investigation
- Emergency Hazardous Material Incidents:
 - No jurisdiction if not use-related
 - Assist lead agency in emergency response

Jurisdiction: Federal Facilities

➤ **Federal employees**

- Comply with federal, state, local pollution control standards (FIFRA)
- Certified applicator (restricted use pesticides)
- Comply with registered pesticide label
- CAC/DPR cannot assess penalties

➤ **Private persons** (contract employees)

- State laws and regulations apply
- DPR and CACs can take action for violations

Jurisdiction: Tribal Lands



- States have no jurisdiction
- DPR and CACs cannot conduct investigations/impose penalties unless agreement with the Tribe

Jurisdiction: Cross Jurisdiction



- Jurisdiction suffering the effects
 - Document seriousness and extent of effects, transmit information
- Jurisdiction where cause originated
 - Responsible to investigate (violations)
 - Take appropriate enforcement action

Pesticide Episode/Complaint Tracking Log



- DPR assigns, numbers and tracks alleged pesticide-related episodes that meet priority criteria and all human effects episodes
- CACs conduct, investigate and track many other kinds of pesticide episodes that fall outside the DPR tracking systems

Pesticide Episode/Complaint Tracking Log

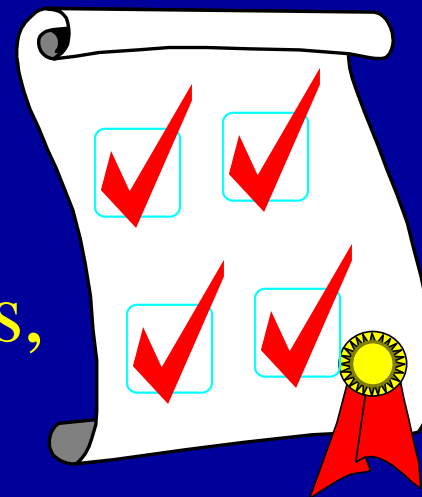
CAC maintains logs that must include:

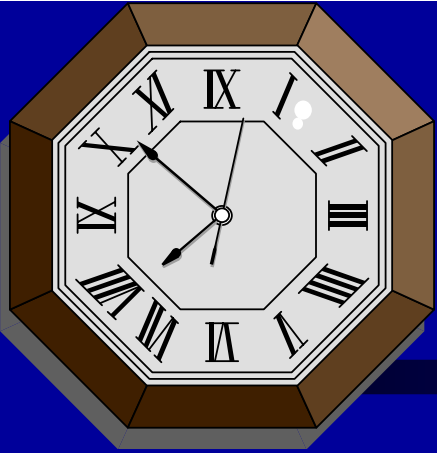
- Date Opened
- Unique Identification (number, name)
- Type of Episode
- Pesticide(s) involved
- Location
- Violations (if any)
- Date closed



Receiving the Episode Report

- Pesticide Illness Report (PIR)
 - County Health Department
 - CA Poison Control System(CPCS)
- Doctor's First Report
- Citizen or employee complaints
- Other agencies, employers, news, media





Investigative Plan

- Start Promptly
 - Do not wait for a written physician's report or written complaint
- Formulate an investigative plan
- Amend the plan as you gather more evidence

Plan Information



- The plan should include:
 - What are the potential violations
 - Who needs to be interviewed
 - What & how many samples to collect
 - What other evidence is needed
 - What inspections to conduct
 - Who needs to be kept informed
 - Summary of findings to date

Exercise I



You received a Pesticide Illness Report (PIR) from you county health department.

Based on the information provided by the PIR, **formulate an investigative plan.**

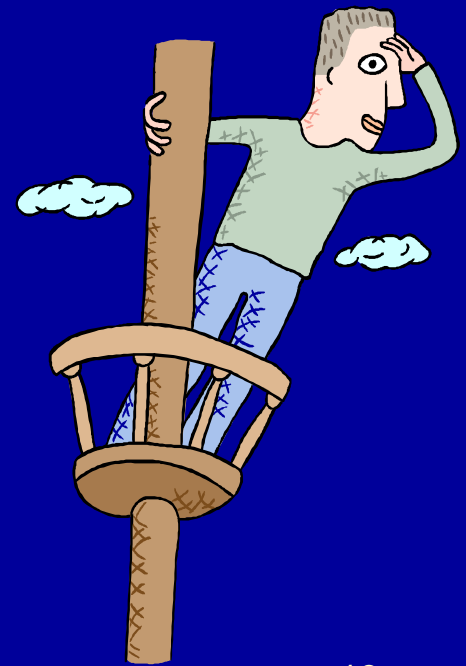
(10 minutes)

Timely Submission of Episode Investigations

- Prompt investigations provide
 - Better factual information
 - Reduces investigative time
- Non-priority investigations: 120 days
- Priority investigations: CAC establishes reasonable completion date
- Time extensions allowed for reasonable cause
 - Must file form PR-ENF-097 with EBL

Investigation Objectives

- Comprehensive exposure information
- Detailed information on all persons involved
- Evidence to prove violations



WH & S Assistance for Human Effects Episodes



- Available to answer questions
- Limited Assistance (follow protocol):
 - Sample collection
 - Interviews (Large Group Episodes)
 - Physician Consultant Services

Information to Include in the Investigation



- Exposure
- Symptoms/Medical
- Use Information
- Decontamination/Notification/
Hazard Communication
- Enforcement Information
- Investigative Conclusions

Exposure Information



- Describe work activities and cultural practices which may impact exposure
- Describe what happened in detail

Symptoms/Medical Information



- Symptoms
- Disability/Hospitalization
- Medical Care
- Medical Records

Symptoms

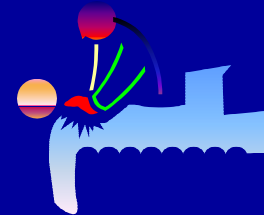


For each person include:

- Time of exposure
- Time of onset and duration of symptoms
- Time of medical treatment
- Description of symptoms
- Do not assume the PIR or DFR are accurate

Disability/Hospitalization Definitions

- Disability: Number of full days an individual missed work or normal activity such as school
- Hospitalization: Number of full days (24-hour periods) an individual was hospitalized



Medical Care Information

- Emergency medical care planned in advance?
- Employee informed?
- Handler emergency medical care posted at work site?
- Employee taken to medical care facility?
- Medical supervision required?

Medical Records

- Get medical release form signed at the time of interview
- Priority episodes: medical records required
- Non-priority episodes: not required, but can provide critical information
 - Cholinesterase test results
 - Other examples
- For help obtaining medical records, call WH&S

Use Information

Give specific details of:

- Product information
- Application equipment
- Training information
- PPE



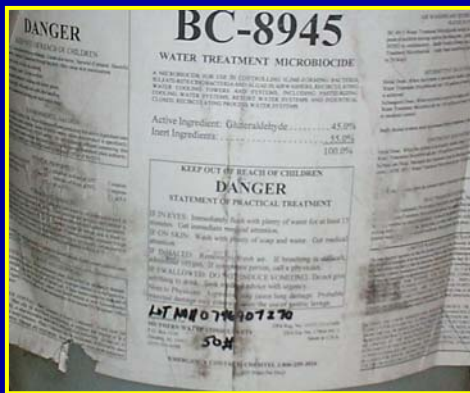
Product Information

- List product even if not a pesticide
- Accurate registration number
- Describe how it was used
- Was it properly used?
- Is it a restricted material?
- Pesticide use history



Product Information

- Only include pertinent label pages
- Obtain a delivered label (FAC § 12973)
- Obtain a DPR registered label (FAC § 12973)
- MSDS only if used as evidence





Application Equipment

Describe application equipment used

➤ Use generic terms whenever possible

➤ **Describe method:**

e.g. ground application, chemigation

➤ **Describe equipment:**

e.g. airblast sprayer, unpressurized spray bottle



Application Equipment



➤ Further describe:

- Application vehicle: Open cab or enclosed cab
- Placement of Nozzles: Hand held wand, below the soil, below and pointed downward
- WH&S list (including definitions) are included in your information packet
- Use of brand names may not allow for determining the type of equipment used

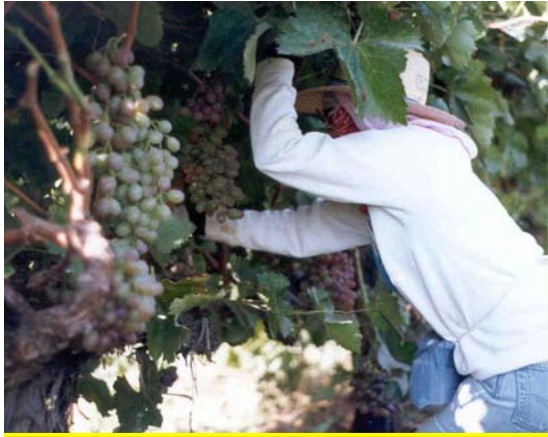


Application Equipment

EXAMPLE:

The employee was applying Lorsban 4E using an Air-O-Fan air blast sprayer being pulled by a John Deere 7800 series enclosed cab tractor. The nozzles were located approximately 20 feet behind the applicator and the enclosed cab was equipped with a charcoal filtration system





Training Handlers/Fieldworkers

- Attach training records for involved employees
- Evaluate employee's knowledge
- Evaluate the quality of the training
- Was the trainer certified
- Heat stress

Personal Protective Equipment (PPE)

- What does label require?
- What do regulations require?
- What was provided?
- What did the employee wear?
- Was PPE properly maintained?
- How does employer assure PPE being worn?



Decontamination/ Notification/ Hazard Communication



- Decontamination
- Notification
- Hazard Communication

Decontamination

- What is required?
- What was provided?
- What was used?



Notification



- Was adequate notice given?
- Did a lack of notice play a role in the incident?

Hazard Communication

- Was the PSIS (A-8, N-8, A-9) filled out and displayed?
- Was the employee informed of the location of haz-com records?
- Was ASI displayed for all pesticides used?
- Did the ASI display contain all required information?



Enforcement Information

➤ Violations

- Identify all violations found
- Include evidence for each element

➤ Enforcement Action

- List all actions taken or proposed



Investigative Conclusions



- Acceptable
 - Identification of violations
 - Determination that causative agent is not a pesticide or used as one
- Not acceptable
 - Personal opinions based on medical evidence

Exercise II



Interviewing the worker

Take notes (you will write up the interview
based on your notes)

Specific Types of Human Effects Episodes


- Field Worker Clusters
- Public Exposure Episodes
- Antimicrobial Pesticides
- Residue on Produce
- Suicides/Attempted Suicides
- Fatalities
- Pest Control Equipment Accidents
- Odor

Field Worker Clusters

Consider the following:


- Is there a continuing human health hazard?
- What is the health status of the affected crew?
- Is there a possibility of illegal residue on the produce?
- What exposure conditions led to the illness?
- Were any violations identified?

Public Exposure Episodes: Large Numbers of People Involved



- Off-site movement of pesticides (including breakdown products and odors) into non-agricultural areas
- Potential for a large number of individuals affected with few seeking medical attention

Public Exposure Episodes: Large Numbers of People Involved



- Take steps to prevent or limit additional exposures
- Involve DPR (EBL & WH & S)
- DPR developed guidelines and tools for CACs to use (Questionnaires, supplement)
- Locate source (treated fields and pesticides involved)

Public Exposure Episodes: Large Numbers of People Involved

Interviews

- Conduct gradient interviews to characterize the extent and severity of the affected area
- Interview 1 adult per household in the affected area to determine who became ill and what their symptoms were.

Public Exposure Episodes: Large Numbers of People Involved

- In-person interviews: Pesticide Episode Investigation Non-Occupational Exposure Supplement (PR-ENF-128)
 - Can be used for up to 15 people/household
- Mail-in Questionnaire: Pesticide Exposure Episode
 - Can be used for up to 10 people/household
- Exposed individuals may be entitled to medical cost reimbursement. (SB 391)

Episodes Involving Antimicrobial Pesticides

- Determine circumstances of exposure
- May conduct interviews over the telephone
- Check labels as many require handlers to wear eye and hand protection
- Document violations and enforcement action
- Educate with DPR handout
- 3 CCR § 6720 (Safety of Employed Persons)

Illnesses allegedly caused by pesticide residues on produce



- Take basic contact information
- Forward complaint to County Health Officer
- Hold commodity samples for County Health Officer determination

Suicides/ Attempted Suicides

- Unique problem for investigator
- Limited investigation
 - Avoid contacting the individual & immediate family
 - Obtain coroner, police & medical records if possible
- Obtain as much information as possible
 - Pesticide
 - Exposure
 - Signs/Symptoms
 - Violations

Fatalities



- Obtain as much information as possible
- If possible collect clothing, PPE, tank mix samples
- Notify WH&S with the name and phone # of County coroner

Pest Control Equipment Accidents

- Determine if a pesticide exposure possibly affected the handler's judgment or abilities
- Include in your report:
 - Work history for 14 days prior to the accident
 - Need for medical supervision, and medical tests
 - Employer supervision evaluation
 - Most likely cause of the accident

Complaints/Illnesses Related to Odor

- All odors represent an exposure to a chemical
- For pesticides, odors may be associated with the active ingredient, inert ingredients, impurities or breakdown products
- Odors can trigger health-related effects in humans
- Characterize the odor in the investigative narrative

Complaints



- Investigate all complaints
 - Did the exposed person(s) seek medical attention?
 - Has the hazardous situation been resolved?
 - Are there any violations?

Employee Complaints



- Labor Code § 6309
- Confidentiality (3CCR § 6704)
- No advanced notice to employer
- Complaint triggers inspections
 - Field worker safety
 - Pesticide Use Monitoring
 - Records

Retaliation

- Did the employee experience any retaliation?
 - If yes, provide him with phone number of DLSE and your business card for referral



Environmental Effects Episodes



- Illegal residue
- Fish and Wildlife Effects
- Emergency Hazardous Materials Episodes
- Property Damage & Loss

Drift



- Pesticide movement through the air away from the target during the application.
- Substantial drift
- Due Care

Drift



3CCR Sec. 6614: Protection of Persons, Animals, and Property

- Prior to and while applying a pesticide
 - Equipment to be used
 - Surrounding properties
- No pesticide application shall be made or continued:
 - Reasonable possibility of contamination
 - Reasonable possibility of damage

Drift



- Determine circumstances at the time of application.
- Consider taking samples to prove drift
 - Foliage
 - Commodity
 - Clothing
 - Swab

Priority Investigation Criteria

- Type of episode
 - Human effects
 - Environmental effects
 - Economic loss
 - Special incidents

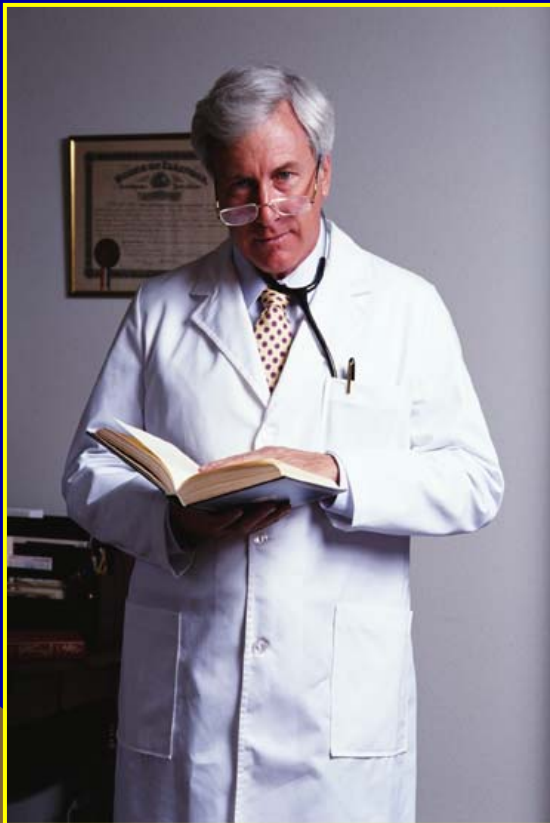


Priority Investigation Criteria



- Key phrases to apply to criteria:
 - Alleged to be pesticide related
 - Appears to meet effects criteria

Priority: Human Effects



- Death
- Any pesticide illness requiring hospital admission as “in patient status”
- Injury or illness involving 5 or more people from a single pesticide exposure

Priority:

Environmental Effects

- Water
 - Contamination of drinking water supply of 10 households
- Air
 - 5 people evacuated
- Land
 - Contamination resulting in 1/2 acre not usable for 1 year or more



Priority: Environmental Effects

➤ Animals and Wildlife:



- 50 non-target birds
- 500 non-target fish
- 1 endangered species
- 5 domesticated, game or other non-target animals

Priority: Economic Loss



Damage to any property, equipment, or livestock that is estimated at \$20,000 or 20% crop yield loss

Priority: Special Incidents



- Those occurring in CA with effects in tribal lands, OR, NV, and AZ.
- Those occurring in tribal lands, OR, NV, and AZ with effects in CA
- Pest control equipment accidents that exceed other criteria

Interviews



- People to interview
- Interpreters (Recommended/
Not Recommended)
- Where to conduct interviews
- Documentation
- Contact log

Interviews: People to Interview

- Injured person(s)
- Employer or Supervisor
- Eyewitness(es)
- Applicator(s)



Interviews: Interpreters



Recommended

- Government employees
- Family members
- Anyone suggested by the employee who is not associated with the employer

Interviews: Interpreters



Not Recommended

- Employer
- Supervisor
- Foreman
- Other company employee

Interviews: Who Should be Present



Only:

- Investigator
- Interpreter
- Interviewee

Interviews:

Where to Conduct Interviews

Any location that provides for a private conversation. The individual must feel comfortable about the location

- Excellent locations: CAC office and individual's home (in person or by phone)
- Less desirable location: employer's office even if the employer is not present

Choosing the right location will reduce the potential for intimidation and retaliation





Interviews: Documentation

- Who was interviewed?
- Who was present at the interview?
- What date and time did the interview take place?
- Where did the interview take place?
- What was said by each person interviewed

Interview Summary

Example

On October 10, 2005 at 1:30 pm, I conducted an in-person interview with Susanna Garcia at her home concerning her illness. Maria Lopez, Agricultural Biologist III acted as a translator as Ms. Garcia does not speak English. Ms. Garcia told me in summary:....



Interviews: Contact Log

- Keep a contact log for each investigation
- Record all attempts to contact individuals involved in the case and results.
- If contact can't be made, the log provides evidence you made a reasonable effort to make contact
 - Whenever appropriate, attach to the report

Exercise III



From your notes of the worker interview, write up a summary of the information you gathered from the interview as part of your investigative report.

Evidence Collection




- Sample Collection
- Documentary Evidence Collection
 - Documents
 - Diagrams
 - Photographs
 - Field Notes

Evidence Collection: Samples



- Foliage
- Clothing
- Tank mixes
- Commodity

Documentary Evidence Collection: Documents




- Restricted Materials Permits
- Recommendations
- Pesticide Use Reports
- Pesticide Labels

Documentary Evidence Collection: Diagrams



- Provide graphic images of the episode location
- Use existing field maps whenever possible

Documentary Evidence Collection: Photographs



- Provides visual documentation
- Photograph crop damage, drift
- Photographs of labels provide evidence of the product involved

Documentary Evidence Collection: Field Notes



- Field Notes
 - Organized field notes facilitate the composition of the investigative narrative
 - Basis for the investigative report
- Interview Questionnaires are not field notes and should be included in the investigation

The Investigative Report



- General Comments
- Report Writing
- Standard Narrative Format

Investigative Report: General Comments



- Maintain an impartial position
 - Include all relevant evidence
- For example:
- farming practices
 - Negative findings
- Conclusions within the investigator's expertise

Report Writing

- Definitive Record of an investigation
- Answer the questions of who, what, when, where, why and how.
- Write reports in the first person active voice
- Identify areas of regulatory concern
- Identify the source of all information

Standard Narrative Format



- Summary
- Background
- Violations
- Witnesses
- Investigation and Statements
- Conclusion
- Attachments

Exercise IV



Writing the Report

Use the information from the worker interview and the additional information handed out to write an outline of your report.